

PRILOGA 2 / APPENDIX 2

Priporočena najmanjša vzdrževana tlačna razlika (dp) preko ovoja čistih prostorov za nadzor prehajanja neživih delcev iz sosednjega manj čistega območja

Recommended Minimum Pressure Differential (dp) Across Cleanroom Envelope to Control Nonviable Particle Migration from Adjacent Less-Clean Area

Cleanliness Class Difference Between Cleanroom and Adjacent Less-Clean Area	Door Closed (Static) Minimum ΔP Between Rooms	Door In Operation (Dynamic) Installation of Air Lock
One-class difference (e.g., ISO Classes 7 and 8 adjacent rooms across door)	0.04 in. w.c. (10 Pa)	Not Required
Two-class difference (e.g., ISO Classes 6 and 8 adjacent rooms across door)	0.04 in. w.c. (10 Pa)	Required if door operation is frequent (more than 30 times daily) <ul style="list-style-type: none"> Install a two-door air lock to replace a single door that separates two areas Minimum 0.02 in. w.c. (5 Pa) across each door of the air lock Time delay between two doors in air lock Not Required if door operation is not frequent (30 times or less daily)
Three-class or more difference (e.g., ISO Classes 5 and 8 adjacent rooms across door)	0.04 in. w.c. (10 Pa)	Required <ul style="list-style-type: none"> Install a two-door air lock to replace a single door that separates two areas Minimum 0.02 in. w.c. (5 Pa) across each door of the air lock Time delay between two doors in air lock
Cleanroom surrounded by non-cleanroom areas		

Izbira konfiguracije HVAC sistema za čiste prostore

Selection of Cleanroom HVAC System Configuration

Type of HVAC Configuration	Typical Application			Referenced Figure
	ISO Class	Airflow Quantity for Room Air Cleanliness and Total Cooling Load	Flow Ratios Between Units	
1 Single AHU	9, 8, 7	AHU to meet both ACH and cooling requirements	n/a	Figure 8.4
2A Primary RFU and Secondary AHU	7, 6, 5, 4	<ul style="list-style-type: none"> AHU mainly to meet cooling requirement RFU to meet room ACH (or average velocity) requirement 	$\frac{\text{Flow rate of RFU}}{\text{Flow rate of AHU}} \geq 4$	Figure 8.5
2B Primary FFUs and Secondary AHU	7, 6, 5, 4	<ul style="list-style-type: none"> AHU mainly to meet cooling requirement FFUs to meet room ACH (or average velocity) requirement 		Figure 8.6
3 Primary RFU, Secondary AHU, and Tertiary Makeup Unit (MU)	4, 3, 2, 1	<ul style="list-style-type: none"> Makeup AHU to meet outdoor air, pressurization, and exhaust air compensation requirements AHU to meet cooling requirement Makeup AHU to meet room ACH (or average velocity) requirement 	$\frac{\text{Flow rate of RFU}}{\text{Flow rate of AHU}} \geq 10$ or $\frac{\text{Flow rate of RFU}}{\text{Flow rate of MU}} \geq 50$	Figure 8.7

Figure 8.5
Primary RFU
with Secondary
AHU (Type 2A)

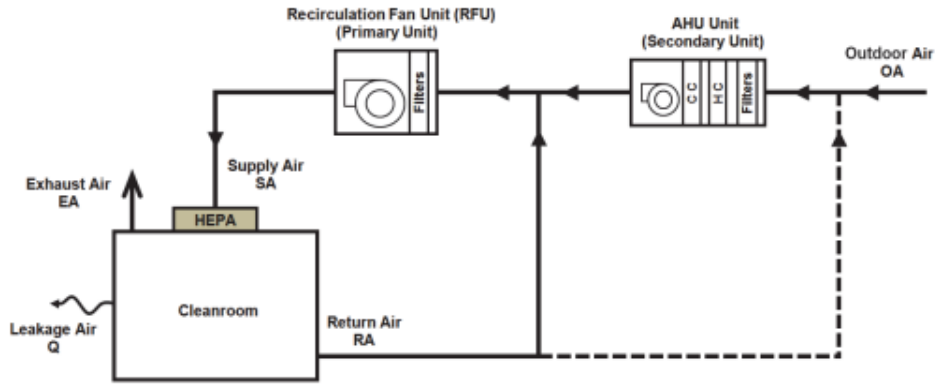


Figure 8.6
Primary
FFUs with
Secondary AHU
(Type 2B)

